National Energy Board

Office national de l'énergie

Reasons for Decision

AEC Suffield Gas Pipeline Inc.

GH-2-2000

August 2000

Facilities

National Energy Board

Reasons for Decision

In the Matter of

AEC Suffield Gas Pipeline Inc.

North Suffield Pipeline

GH-2-2000

August 2000

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Abbreviations and Definitions

AEC Marketing	the name under which AEC Oil & Gas Partnership conducts its marketing business
AEC Oil & Gas	AEC Oil & Gas Ltd., nominee for the AEC Oil & Gas Partnership
AEC Suffield or Applicant	AEC Suffield Gas Pipeline Inc.
AEUB	Alberta Energy Utilities Board
AFUDC	allowance for funds used during construction
Bcf	billion cubic feet
Bcf/d	billion cubic feet per day
Board (or NEB)	National Energy Board
CEAA	*Canadian Environmental Assessment Act*
CP Railway	Canadian Pacific Railway
DND	Department of National Defence
EPN	Early Public Notification
Foothills	Foothills Pipe Lines Ltd.
GJ	gigajoule
HDD	horizontal directional drill(ed)
IT	interruptible transportation
km	kilometre(s)
kPag	kilopascals (gauge)
LSD	Legal Sub-Division
LRS	Load Retention Service
m	metre(s)
Military Block	Suffield Military Training Block
mm	millimetre(s)

m^3	cubic metres
MMcf/d	million cubic feet per day
MOG	*Memorandum of Guidance on the Regulation of Group 2 Companies*
NEB Act	*National Energy Board Act*
NGTL	NOVA Gas Transmission Ltd.
NPS	Nominal Pipe Size (in inches)
OPR-99	*Onshore Pipeline Regulations, 1999*
PA(s)	Precedent Agreement(s)
psig	pounds per square inch (gauge)
Report	Environmental Screening Report
Tcf	trillion cubic feet
TJ/d	Terajoules per day
TransCanada, TCPL	TransCanada PipeLines Limited
U.S.	United States of America
WCSB	Western Canada Sedimentary Basin
10^6 m^3/d	million cubic metres per day

Referenced NEB Proceedings

GH-5-89	NEB Reasons for Decision (Volume 1) dated November 1990 on an application dated 29 June 1989, as amended 15 December 1989, by TransCanada PipeLines Limited to expand its facilities.
GH-3-97	NEB Reasons for Decision dated November 1998 on an application dated 3 July 1997 by Alliance Pipeline Ltd., on behalf of the Alliance Pipeline Limited Partnership, for the Alliance Pipeline Project
GH-1-98	NEB Reasons for Decision dated May 1998 on an application dated 23 May 1997 by Northstar Energy Corporation to construct and operate a natural gas pipeline in southwestern Alberta and southeastern British Columbia (referred to as the Coleman Pipeline)
GH-2-98	NEB Reasons for Decision dated July 1998 on an application dated 10 September 1997 by AEC Suffield Gas Pipeline Inc. to construct and operate a natural gas pipeline in southeastern Alberta and southwestern Saskatchewan (referred to as the South Suffield Pipeline)
GH-3-98	NEB Reasons for Decision dated November 1998 on an application dated 29 April 1998 by TransCanada PipeLines Limited for its 1999 facilities expansion
RH-1-99	NEB Reasons for Decision dated April 2000 on an application dated 29 October 1999 by TransCanada for amendments to its tariff
GH-2-2000	NEB Reasons for Decision dated August 2000 on an application dated 7 March 2000 by AEC Suffield Gas Pipeline Inc. for the North Suffield Pipeline

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* (NEB Act) and the Regulations made thereunder; and

IN THE MATTER OF an application dated 7 March 2000 by AEC Suffield Gas Pipeline Inc. (AEC Suffield) for a Certificate of Public Convenience and Necessity pursuant to section 52 of the NEB Act authorizing AEC Suffield to construct and operate a pipeline in southeastern Alberta and southwestern Saskatchewan and related toll and tariff authorizations, and

IN THE MATTER OF Hearing Order GH-2-2000.

HEARD in Calgary, Alberta on 26, 27 and 29 June 2000.

BEFORE:

E. Quarshie	Presiding Member
K.W. Vollman	Member
J. A. Snider	Member

APPEARANCES:

D.G. Davies T. Hughes	AEC Suffield Gas Pipeline Inc.
C.J.C. Page	Province of Alberta (Alberta Department of Resource Development)
L. Confrancisco	Foothills Pipe Lines Ltd.
P. Keys	NOVA Gas Transmission Ltd. TransCanada PipeLines Limited
E. Decter	Pan-Alberta Gas Limited
D. Gessell	TransCanada Gas Services
J. Hocking G. Delisle	National Energy Board

Chapter 1

Introduction

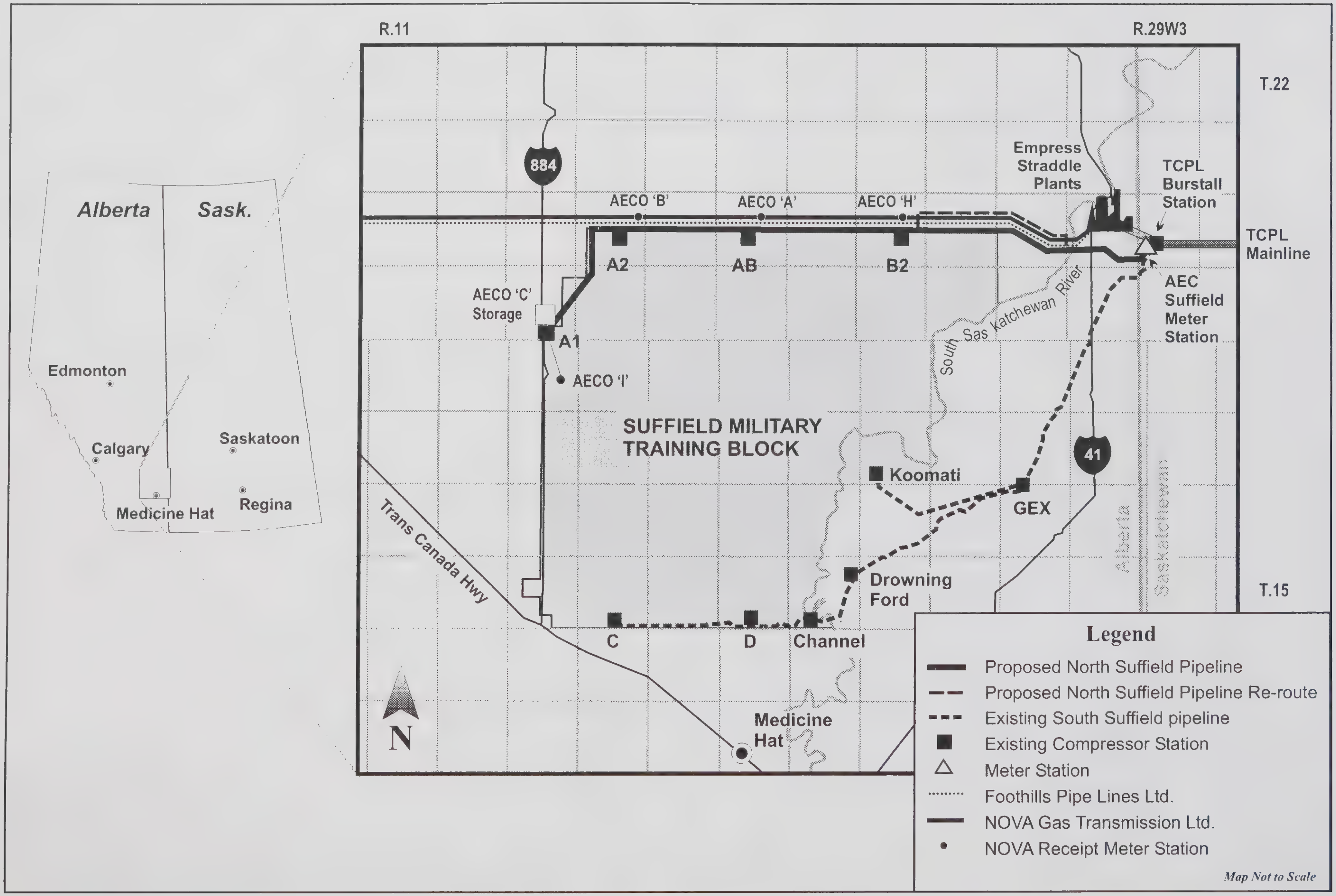
On 7 March 2000, AEC Suffield Gas Pipeline Inc. (AEC Suffield or the Applicant) applied to the National Energy Board (the Board or NEB) for a Certificate of Public Convenience and Necessity pursuant to section 52 of the *National Energy Board Act* (NEB Act), to construct and operate the proposed North Suffield Pipeline in southeastern Alberta and southwestern Saskatchewan. AEC Suffield also applied to be regulated as a Group 2 Company for the purposes of toll and tariff regulation.

The North Suffield Pipeline would consist of approximately 97 km of 406.4 mm outside diameter (NPS 16) natural gas transmission pipeline and associated control facilities, with a design capacity of approximately 5.35 $10^6m^3/d$ (190 MMcf/d). AEC Suffield stated that the proposed pipeline would transport gas from four existing AEC Oil & Gas Ltd. (AEC Oil & Gas) compressor stations located along the western and northern boundaries of the Suffield Military Training Block (Military Block) to an AEC Suffield meter station connecting to the TransCanada PipeLines Ltd. (TransCanada) system near Burstall, Saskatchewan (refer to Figure 1-1). The route follows existing corridors for most of its length and would require less than 75 km of new right-of-way. The proposed in-service date of the North Suffield Pipeline is 1 November 2000. The estimated capital cost of the project is $22.3 million.

As a responsible authority under the *Canadian Environmental Assessment Act* (the CEAA), the Board is required to carry out an environmental screening of the North Suffield Pipeline.

The Board decided to consider the application in an oral public hearing and issued Hearing Order GH-2-2000 on 29 March 2000, which set out the Directions on Procedure for the hearing. The hearing was held in Calgary from 26 to 29 June 2000.

Figure 1-1
AEC North Suffield Pipeline



Chapter 2

Facilities

2.1 Facilities Description

The proposed North Suffield Pipeline extends eastward from the northwestern corner of the Military Block along the northern boundary of the Military Block to an existing AEC Suffield meter station connecting to TransCanada's pipeline system near Burstall, Saskatchewan. The pipeline would transport natural gas from four existing compressor stations located along the western and northern boundaries of the Military Block The four compressor stations, A1, A2, AB and B2, are operated by AEC Oil & Gas. The pipeline would have a design capacity of approximately 5.35 10^6 m^3/d (190 MMcf/d) and a maximum operating pressure of 8 460 kPag (1227 psig).

The proposed North Suffield Pipeline consists of approximately 97 km of 406.4 mm outside diameter (NPS 16), Grade 448, Category II pipe. The minimum pipe wall thickness would be 4.8 mm for the line pipe and 7.1 mm for the South Saskatchewan River crossing, road crossings, a railway crossing and assembly piping. All line pipe would be coated with a polyethylene jacket. The pipe for the South Saskatchewan River crossing would have a base coat of fusion-bonded epoxy for corrosion protection and a urethane coating for mechanical protection.

The North Suffield Pipeline would also include the following facilities:

- a pig launcher and receiver with associated blowdown valves;
- minor valve assemblies at each receipt point;
- a mainline isolation valve;
- a SCADA system; and
- an impressed-current cathodic protection system.

AEC Suffield proposes to construct the North Suffield Pipeline during September and October 2000 for an in-service date of 1 November 2000. The estimated capital cost for the proposed facilities is $22.3 million (refer to Table 2-1).

2.2 Horizontal Directional Drill of the South Saskatchewan River

AEC Suffield has conducted geotechnical investigations and ground penetrating radar surveys at the proposed crossing location of the South Saskatchewan River and is confident that the soil conditions are conducive to a horizontal direction drill (HDD) crossing. AEC Suffield proposed no alternate crossing method as a contingency.

AEC Suffield submitted that, in the unlikely event that the HDD is unsuccessful at the proposed location, it would attempt to re-drill the crossing in close proximity to the initial location. AEC Suffield indicated that it understands that, should its attempts to conduct the HDD crossing at the proposed location be unsuccessful, it would be required to obtain prior approval from the Board for an alternate method or location.

Table 2-1
Estimated Capital Costs of the Proposed Facilities

Category	Total Cost ($000)
Land and Land Rights	170
Pipelines	19,200
River Crossing - Horizontal Drill	750
SCADA	300
Engineering, Environment & Project Management	1,450
Administrative, Overhead and Pre-certificate	222
AFUDC	158
Total	22,250

2.3 Crossings of Existing Pipelines

AEC Suffield filed a 22 km re-route for a portion of the North Suffield Pipeline, on 23 June 2000, that would involve crossing under five existing pipelines (four owned by Nova Gas Transmission Limited (NGTL) and one by Foothills Pipe Lines Ltd. (Foothills)). Refer to Section 3.2.2 for a description of the proposed re-route.

AEC Suffield submitted that a HDD would be the preferred method for crossing under the five existing pipelines, but that conventional open cut and horizontal augering methods would also be viable. Design changes for the re-route include two additional induction bends for the proposed HDD crossings. The additional costs for the proposed re-route are listed in Table 2-2.

Table 2-2
Estimated Additional Costs of the Re-route

Description	Total Cost ($000)
HDD	72
Induction Bends	16
Additional Tie-ins	15
Total	103

2.4 Safety of Construction and Operation

AEC Suffield submitted that the design and construction of the North Suffield Pipeline would meet or exceed the requirements of the *Onshore Pipeline Regulations*, 1999 (OPR-99) and the Canadian Standards Association Z662-99, *Oil and Gas Pipeline Systems*. AEC Suffield further submitted that it would develop a quality assurance program and inspection and audit procedures to ensure that the specifications requirements for the materials are fulfilled during manufacturing and construction. AEC Suffield's Construction Audit and Inspection Procedures would be developed prior to start of construction.

AEC Suffield submitted that the operation of the North Suffield Pipeline would comply with the requirements outlined in the OPR-99. AEC Suffield indicated that its Operational Audit and Inspection Procedures would be developed on an ongoing basis after the commencement of operation.

With respect to construction in the Military Block, AEC Suffield submitted that a set of requirements outlining special safety precautions would form part of its Construction Safety Manual, to be filed with the Board prior to construction (Appendix II, Condition 7). The special safety precautions would include awareness of the military activities, preconstruction and daily tailgate safety meetings with the contractor and its supervisors, and the inclusion of any military instructions in the contract. AEC Suffield further submitted that it has obtained written permission from the Department of National Defence (DND) to conduct its construction activities on the Military Block. Moreover, AEC Suffield would maintain daily contact with DND.

Views of the Board

The Board is satisfied that the proposed facilities would be designed, constructed and operated in accordance with the NEB Act, the OPR-99, and widely accepted standards for design, construction, testing, operation and maintenance.

The Board is satisfied that the proposed HDD method is appropriate for crossing the South Saskatchewan River and will condition any certificate that may be granted to specifically require AEC Suffield to use this method for the river crossing (Appendix II, Condition 17). Should AEC Suffield's HDD attempts fail, AEC Suffield would be required to seek authorization from the Board prior to attempting to cross the South Saskatchewan River at another location or using any other method. AEC Suffield would also be required to conduct a separate site-specific assessment of the relevant environmental considerations.

The Board is of the view that an operational audit program cannot be developed on an ongoing basis as proposed by the Applicant, but rather should be developed in the early stages of operation of the pipeline. The Board, however, expects that the operational audit program, once developed, would be revisited by AEC Suffield on an ongoing basis.

The Board will condition any certificate that may be granted to ensure that AEC Suffield develops an audit program, pursuant to section 53 of the OPR-99, that will evaluate and verify that AEC Suffield is in compliance with its procedures and standards as they relate to the protection of property and the environment, and the safety of the public and the company's employees (Appendix II, Conditions 5 and 16).

Upon receipt of the Construction Safety Manual, the Board will ensure that AEC Suffield has adequately addressed concerns related to construction activities in the Military Block.

Chapter 3

Environment, Land and Socio-Economic Matters

3.1 Environmental Matters

The Board considered environmental matters related to the proposed project pursuant to the NEB Act and the CEAA. The Board completed an environmental screening report (the Report) pursuant to sub-section 18(1) of the CEAA which also meets the requirements of the Board's own regulatory process. In addition, the Report contains information regarding the environmental conditions to be included in any certificate in respect of the application and addresses matters pertaining to public consultation. The Board circulated the Report to those public agencies that submitted letters of comment, to the Applicant, and to parties that commented on environmental matters during the proceeding.

> ***Views of the Board***
>
> The Board has considered the Report and comments received on it in accordance with the GH-2-2000 Directions on Procedure and is of the view that, taking into account the implementation of AEC Suffield's proposed mitigative measures and those set out in the attached conditions, the North Suffield Pipeline is not likely to cause significant adverse environmental effects. This represents a decision pursuant to paragraph 20(1)(a) of the CEAA and was taken prior to making a decision under Part III of the NEB Act in respect of the applied-for facilities. With regards to continued protection of the environment, the Board will carry out its own inspections and audits in accordance with the relevant legislation and conditions of approval.

3.2 Route Selection

AEC Suffield stated that the proposed pipeline would transport gas from four existing AEC Oil & Gas compressor stations located along the western and northern boundaries of the Military Block to an AEC Suffield meter station connecting to the TransCanada system near Burstall, Saskatchewan. Accordingly, these receipt and delivery points represented control points which any proposed route would need to intersect. AEC Suffield then identified a broad routing corridor that roughly parallelled the west and north boundaries of the Military Block.

AEC Suffield stated that its routing criteria between the established control points and within the broad corridor were:

- constructability;
- to maximize the use of existing linear disturbances (roads, pipelines, powerlines);
- to minimize potential conflict with special status wildlife species of management concern;
- to minimize or avoid rare plants or unique vegetation communities;
- to minimize the number of landowners impacted;

- selection of an optimal crossing location of the South Saskatchewan River (environmental, engineering, geotechnical considerations);
- to avoid the National Wildlife Area within the Military Block; and
- to avoid known archaeological or palaeontological features.

AEC Suffield stated that it reviewed existing mapped information, published reports, aerial photos and other regulatory applications for facilities in the area of the proposed project, conducted a helicopter reconnaissance and consulted regulatory agencies and other stakeholders with respect to potential routes. AEC Suffield submitted that, based on these considerations, it had selected the shortest practical route for the pipeline.

3.2.1 Route Description

The proposed route would travel along the north side of the Military Block for approximately 60 km, largely sited along the southern ditch line of the existing Marsh and Kangaroo Rat roads. Just west of the South Saskatchewan River, the proposed route swings south then east to cross the river approximately 200 m south of the NGTL pipeline corridor. The proposed pipeline would tie into an existing AEC Suffield meter station 12 km east of the river and just south of the Burstall facilities. The proposed route would parallel existing roads and rights-of-way for approximately 83 km, or 85 percent of its overall length.

3.2.2 Re-route

In response to the results of its early summer 2000 environmental field surveys, AEC Suffield filed a change to a section of the proposed route on 23 June 2000. The proposed re-route is approximately 22 km in length and located immediately to the west of the South Saskatchewan River. The route was shifted approximately 200 m north to parallel the north side of the existing NGTL/Foothills rights-of-way from Legal Sub-Division (LSD) 14-15-20-04-W4M to LSD 11-11-20-02-W4M. The re-route rejoins the original proposed route at the South Saskatchewan River crossing.

AEC Suffield submitted that the proposed re-route would reduce potential interactions between the proposed pipeline and Ord's kangaroo rats, burrowing owls and rare plant populations.

> ***Views of the Board***
>
> The Board finds the route selection criteria identified by AEC Suffield for the proposed route and the re-route to be acceptable. The Board further finds that AEC Suffield's approach to route selection resulted in an appropriate route for the pipeline.

3.3 Land Requirements

AEC Suffield provided right-of-way information for the North Suffield Pipeline regarding:

- use of adjacent rights-of-way;
- the permanent right-of-way; and
- temporary work space requirements.

Due to the late decision to re-route 22 km of the pipeline, some information on rights-of-way was not complete with respect to that portion of the route. The applicant agreed to submit updated information should the application be approved.

3.3.1 Adjacent Rights-of-Way

AEC Suffield stated that it has maximized the use of existing linear disturbances, which include the Kangaroo Rat Road and the AEC Oil & Gas, AEC Suffield (South Suffield Pipeline) and Foothills rights-of-way. AEC Suffield anticipated that the proposed right-of-way requirements would be substantially reduced (in comparison with the standard requirement for temporary working space) since the Kangaroo Rat Road can be used for temporary work space. AEC Suffield has also requested written permission from Foothills to utilize 5 m of its right-of-way for temporary work space during construction.

3.3.2 Permanent Easement

In its Application, AEC Suffield identified a requirement for a 15 m wide right-of-way throughout the entire length of the North Suffield Pipeline, with the exception of the South Saskatchewan River Crossing. AEC Suffield identified a requirement for a 50 m right-of-way at the river crossing to accommodate welding, pretesting, grading, and drilling operations.

3.3.3 Temporary Work Space

AEC Suffield identified a requirement for 8 m of temporary work space in addition to the 15 m of permanent right-of-way. AEC Suffield stated that it would require additional temporary work space, over and above this 23 m, for storage and travel at the following general locations:

- Road Crossings - 10 m x 40 m including both sides of the road, on both sides of the right-of-way;
- Road Allowances - 5 m x 40 m including both sides of the road, on ditch side of the right-of-way only;
- Side Bends - 5 m throughout length of bend, on ditch side of the right-of-way only;
- Highway 41 - 10 m x 40 m including both sides of the road, on both sides of the right-of-way;
- Canadian Pacific (CP) Railway Crossing - 40 m x 70 m including both sides of the railway, on both sides of the right-of-way; and
- Pipeline Crossings - 5 m x 40 m including both sides of the pipeline, on ditch side of right-of-way only.

The proposed North Suffield Pipeline will cross the CP Railway in the same location as the South Suffield Pipeline. On 16 June 2000, AEC Suffield requested permission to cross the CP Railway. AEC Suffield had not received a response from CP Railway prior to the close of the oral hearing.

3.3.4 Freehold Land

In April and May 2000, AEC Suffield completed personal service of section 87 notices for all the landowners, tenants, and those with third party interests on the original North Suffield Pipeline route.

With respect to the proposed 22 km re-route, AEC Suffield indicated that it had verbally contacted the two new landowners immediately upon the re-route being established, and had received permission from the landowners to survey the re-route. AEC Suffield indicated that the section 87 notices to the new parties would be served during the week of 26 June 2000.

Views of the Board

The potential impacts of the construction of the proposed pipeline on affected landowners, including the amount of land required for easements and temporary work space, have been considered by the Board. For the originally proposed route, the Board finds that AEC Suffield's anticipated requirements for easements and temporary work space are reasonable and justified. The Board acknowledges AEC Suffield's commitment to parallel existing rights-of-way and to utilize those existing rights-of-way, where available, for temporary work space.

With respect to the 22 km re-route, the Board will require AEC Suffield, as a condition of any certificate that may be granted, to file with the Board for approval, at least 21 days prior to commencement of construction of the facilities, any modifications required for the re-route as specified in the condition (Appendix II, Condition 13).

3.4 Public Concerns

AEC Suffield submitted that it had developed and implemented a comprehensive public consultation program to ensure that those with an interest in, or those affected by, the North Suffield Pipeline had an opportunity to participate in shaping the project. This program sought to explain all aspects of the pipeline, including the potential environmental and socio-economic effects, and to provide the public with an opportunity to raise issues and comment on the project. AEC Suffield submitted that it has tracked and responded to the public comments and that public input has been taken into account in the planning process.

AEC Suffield submitted that its public consultation program met the Board's requirements for Early Public Notification (EPN) as set out in the *Guidelines for Filing Requirements*. Specific measures included:

- developing an information package for public distribution;
- publishing newspaper advertisements and posting notices;
- holding two Open Houses;
- providing a toll-free number to call; and
- convening meetings with a variety of stakeholders.

AEC Suffield indicated that regulatory agencies, municipalities, First Nations, a trapper, and environmental and other non-governmental organizations, potentially affected or interested in the proposed project, were notified of the project either by mail or by phone. As well, about 22 landowners and occupants along the proposed pipeline route were contacted in person by a land agent.

In the cases of those stakeholders who did not respond to the information package mail-out, AEC Suffield did not initially conduct any follow-up communication. The Board subsequently issued an

information request to ensure that the company conducted the necessary follow-up communication in order to confirm that the lack of response was indeed due to a lack of concern with the project.

AEC Suffield identified a number of environmental interest groups and non-governmental organizations with an interest in the project. AEC Suffield invited these groups and organizations to a meeting on 4 February 2000 and to participate in an Environmental Advisory Panel for the pipeline. Few issues were brought to the meeting and AEC Suffield subsequently decided not to form an Environmental Advisory Panel, but rather to work through issues with key contacts.

AEC Suffield submitted that it also met on a one-to-one basis with stakeholders, municipalities, businesses and community organizations, provincial and federal regulatory and government agencies, and environmental groups to disseminate information, to identify issues and mitigative options, and to establish an ongoing relationship to address planning concerns as they arise.

AEC Suffield submitted that, through the consultation process, it has worked with interested parties to revise the pipeline plans to address any public concerns.

> ***Views of the Board***
>
> The Board is of the view that AEC Suffield could have been more proactive in its initial public consultations by conducting follow-up communications with all parties. The Board also notes, however, that after follow-up communications were conducted no parties brought forth any public concerns to the Board's attention.

Chapter 4

Traffic, Tolls and Tariffs

4.1 Financial Matters

The cost of the proposed pipeline is approximately $22.3 million. AEC Suffield indicated that it will assume all the financial risks of the proposed facilities for the life of those facilities. AEC Suffield stated that it intends to finance the proposed pipeline through internal financing from its parent company, Alberta Energy Company Ltd., which is its sole shareholder. The actual rate of return that AEC Suffield would earn on the applied-for facilities would depend on its ability to manage its costs.

AEC Suffield's application was not contested in this regard.

Views of the Board

The Board is satisfied that AEC Suffield is able to finance the proposed pipeline.

4.2 Tolls, Tariffs and Transportation

AEC Suffield indicated that it is a commercially at-risk pipeline and proposes market-based tolls for its transmission services. The proposed rate design for firm service is based on energy content rather than volume and will incorporate a long-term incentive approach which is expected to provide shippers with long-term certainty and, at the same time, provide AEC Suffield with an acceptable rate of return on its investment. The proposed firm service transportation rates will vary with the length of the term of the transportation service agreement, the longer the term of the contract, the lower the transportation rate. AEC Suffield also stated that the final firm service transportation rates would not exceed the firm service transportation rates which are in effect for the AEC South Suffield Pipeline (GH-2-98 Reasons for Decision). The Applicant proposed a five, ten, fifteen and twenty-year toll structure for initial shippers (refer to Table 4-1).

Table 4-1
Proposed Firm Service Transportation Rates

Term (Years)	Transportation Rate ($/GJ)
5	$0.175
10	$0.162
15	$0.153
20	$0.137

AEC Suffield stated that firm service transportation rates for any shippers other than the original shippers will be determined by commercial arrangements made between such shippers and AEC Suffield. AEC Suffield also stated that all such arrangements will comply with the requirements of section 62 of the NEB Act.

AEC Suffield stated that if there is available capacity it would offer interruptible transportation (IT) service. AEC Suffield considers it appropriate to establish its IT rates on a market basis. The initial IT rate will be based on a 10 percent premium to the five-year firm service transportation rate.

AEC Suffield stated that it intends to use its tariff, dated November 1998, which is currently on file with the Board.

AEC Suffield's application was not contested in this regard.

4.3 Method of Regulation

AEC Suffield applied to the Board to be regulated as a Group 2 Company for purposes of toll and tariff regulation. AEC Suffield's application was not contested in this regard.

Views of the Board

The Board is of the view that, for administrative purposes, AEC Suffield should be regulated as a Group 2 Company in accordance with the Board's *Memorandum of Guidance on the Regulation of Group 2 Companies* (MOG) dated 6 December 1995.

In accordance with the Board's MOG, Group 2 Companies are regulated on a complaint basis. Accordingly, the Board does not consider it necessary to issue an order approving AEC Suffield's proposed tolls and tariffs. However, the Board notes that while AEC Suffield's tariff is on file, the Applicant is required to file a copy of the finalized transportation rates prior to the commencement of operation of the proposed pipeline, in accordance with paragraph 60(1)(a) of the NEB Act.

The Board reminds AEC Suffield that paragraphs 5(2) (a), through (c) of the *Gas Pipeline Uniform Accounting Regulations* remain in effect. Further, the cost of this project, including any overruns, may be subject to examination pursuant to the Board's responsibilities under Part IV of the NEB Act.

Decision

The Board has decided to continue regulating AEC Suffield as a Group 2 Company for the purposes of the MOG.

Chapter 5

Economic Feasibility, Competition, Impacts on Third Parties and the Public Interest

5.1 Supply

5.1.1 Overall Gas Supply

AEC Suffield indicated that the proposed pipeline project would rely on gas supply from a catchment area that extends around and includes the Suffield Field. The Suffield Field includes the Military Block area. The catchment area is identified to be from Townships 5 to 17, Ranges 1 to 17, West of the 4th Meridian.

Gas supply would be drawn from the Suffield Field that has estimated remaining reserves of 17 241 10^6m^3 (609 Bcf), while some gas from the Alderson Field, that could be available, has 9 458 10^6m^3 (334 Bcf) of remaining established gas reserves as of 31 December 1998. The Suffield Field is currently being drawn upon by the AEC South Suffield Pipeline as a gas supply area for that system. The catchment area, excluding the above two fields, is estimated to have 96 450 10^6m^3 (3.4 Tcf) of remaining established gas reserves.

To determine potential gas resources, AEC Suffield relied on a regional study by Ziff Energy Group entitled *Natural Gas Supply Potential Study*, March 2000, that was based mainly on geological judgement. This study provided an estimate of 116 073 10^6m^3 (4.1 Tcf) of undiscovered gas potential for the catchment area. AEC Suffield submitted that the regional gas supply could provide the option of delivering gas volumes from existing pools or from future discoveries and this would maintain contractual requirements. AEC Suffield indicated that development of the undiscovered gas supply could also provide incremental gas volumes from the catchment area although, at this time, AEC Suffield is not relying upon any gas supply other than its own volumes for the proposed project.

NGTL, the only active intervenor in the proceeding, examined how the region's gas supply was identified and indicated there are questions as to the realism and usefulness of the *Natural Gas Supply Potential Study* with respect to connectivity to the proposed North Suffield Pipeline. NGTL suggested that any volumes of undiscovered gas supply to be developed might more practically be delivered through existing pipelines rather than through the proposed facilities.

5.1.2 Supply for New and Existing Pipelines

NGTL stated that the Board had noted in the Alliance GH-3-97 Reasons for Decision that, on a long-term basis, overall gas supply must be sufficient to sustain reasonable utilization rates on both new facilities and on existing pipeline systems. According to NGTL, the Board also implied that temporary offloading of existing pipeline systems would only be acceptable if any refill period is short lived.

In this case, NGTL argued, AEC Suffield failed to show that sufficient supply would be available in the short term for the North Suffield Pipeline itself, let alone for other existing pipeline systems. The North Suffield Pipeline is designed to transport a volume of approximately 5.35 $10^6m^3/d$ (190 MMcf/d), but AEC Suffield appears only to have an available volume of approximately 1.41 $10^6m^3/d$ (50 MMcf/d). NGTL suggested that this volume would be unlikely to increase in the near term even though, in April 2000, AEC Oil & Gas announced the acquisition of significant land holdings in the Military Block.

NGTL noted AEC Suffield's statement that 5.35 $10^6m^3/d$ (190 MMcf/d) was a reasonable estimate of its production from the Suffield Field. AEC Suffield acknowledged that 3.94 $10^6m^3/d$ (140 MMcf/d) of this production is already flowing on its South Suffield pipeline, which is currently utilized at 75 percent of its capacity. AEC Suffield said that it expected third parties would provide sufficient volumes to make up the remaining 3.94 $10^6m^3/d$ (140 MMcf/d) of capacity available on the North Suffield Pipeline. NGTL stated that there was no evidence on the record that third party supply would be available.

NGTL noted AEC Suffield's assertion that the proposed pipeline would not physically connect to Alberta Energy Company's AECO C storage facilities. NGTL stated that if the pipeline were able to access AECO C, it would effectively obtain a guaranteed gas supply; gas that would have been shipped on NGTL's system from almost anywhere in Alberta. NGTL suggested that if the Board approved the project, a condition should be imposed on the Applicant that a physical connection to the storage facility not be put in place without the prior approval of the Board. AEC Suffield stated that it would accept such a condition.

5.2 Markets

5.2.1 Transportation and Markets

The North Suffield Pipeline would interconnect with the mainline facilities of TransCanada at Burstall, Saskatchewan and would allow shippers to serve existing markets in eastern Canada and the U.S. Midwest and Northeast. While no project-specific market information was filed, AEC Suffield relied on the long-term domestic and export macro-market forecasts submitted by TransCanada in the GH-3-98 and RH-1-99 proceedings and the NEB report entitled *Canadian Energy Supply and Demand to 2025*, released in June 1999, which forecast growth in gas demand over the 1996 to 2010 period. In addition, as evidence of significant market growth potential, AEC Suffield referred to TransCanada's 1999 Annual Report which stated that demand for natural gas in North America is expected to grow by 215 000 10^6m^3 (7.6 Tcf) by 2010 and that the growth in U.S. demand is expected to fill existing and under-construction pipelines.

AEC Suffield submitted that the existence of sufficient market demand for its proposed facilities is demonstrated by the aforementioned natural gas macro-market forecasts and by the commitment of its marketing affiliate, AEC Marketing, through the signing of a Precedent Agreement (PA).

In response to NGTL's argument that the proposed pipeline will not increase the total volumes of gas transported from Alberta nor will it access incremental gas supplies or markets, AEC Suffield contended that the purpose of a competitive alternative is to give customers choice. This, in turn, should motivate all pipelines to pursue efficiencies, which in the long run may reduce the cost to shippers and make more gas marketable. AEC Suffield further submitted that the NEB Act refers to the demonstration of markets

as a filing requirement: however, AEC Suffield suggested that existing markets would satisfy this requirement as the NEB Act does not specify incremental markets. NGTL said that it does not dispute the existence of current markets.

5.2.2 Transportation Contracts

The proposed pipeline, which would have a design capacity of approximately 5.35 $10^6m^3/d$ (190 MMcf/d), is currently 24 percent subscribed. One shipper, AEC Marketing has subscribed 46.4 TJ/d (approximately 45 MMcf/d)[1] of capacity for a term of 20 years. AEC Suffield filed a copy of the executed PA with AEC Marketing and a copy of a *pro forma* Firm Service Agreement that would be executed once the conditions precedent have been met.

AEC Suffield indicated that discussions are continuing with other prospective shippers for a potential requirement in excess of 4.23 $10^6m^3/d$ (150 MMcf/d) of capacity.

NGTL submitted that AEC Suffield's proposal demonstrates the lack of overall market and incremental market commitment. NGTL noted that AEC Suffield has not identified nor been successful in subscribing the remaining approximate 75 percent of the available capacity.

5.3 Economic Feasibility

Views of the Applicant

In its application, AEC Suffield stated that the North Suffield Pipeline is a commercially at-risk pipeline with market-based charges for transmission services. AEC Suffield stated that gas transmission and distribution charges comprise a significant component of the retail sale price of natural gas. Gas producers are constantly seeking ways to reduce these costs to enhance the netback price and to improve shareholder value.

AEC Suffield discussed the specific benefits of the North Suffield Pipeline to its current shipper, AEC Marketing. AEC Suffield submitted that the proposed toll of 13.7¢/gigajoule (GJ), as compared to the current NGTL toll of 26.1¢/GJ, would result in a saving to AEC Marketing alone of approximately $2.1 million per year. The North Suffield Pipeline would not have a fuel requirement as does NGTL, which would result in an additional saving of $1.17 million per year based on a $5.00/GJ gas price. Furthermore, AEC Marketing would obtain rate certainty and would not be subject to future NGTL rate increases. AEC Marketing could also receive flexibility in being able to reduce its contracted volumes by 10 percent annually. Finally, AEC Suffield argued that lower tolls have the potential to make unexploited resources economic.

AEC Suffield suggested that the savings in tolls and fuel to AEC Marketing, based on service for 46.4 TJ/d, would be $3.27 million per year. If the North Suffield pipeline were fully subscribed, the annual savings to shippers would approach $14 million per year.

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1 Firm service capacity subscribed under the PA is contracted for in energy (heat content) units. To determine the level of pipeline utilization in volumetric units, it is necessary to convert energy units to volume units. This conversion is not straightforward given that the heat content of gas volumes flowing from individual gas wells varies. To facilitate discussion of pipeline capacities and subscribed quantities, quantities will generally be referred to as volumetric units.

AEC Suffield submitted that it had fulfilled the requirements of section 52 of the NEB Act.

Views of NGTL

NGTL argued that the North Suffield Pipeline application falls far below any threshold the Board has established in its prior decisions and any reasonable threshold which should be met under most circumstances. NGTL said that this is an important precedent and policy setting case. There must be reasoned limits imposed on capacity additions. NGTL questioned how little a new entrant into an over-piped transportation market must show to obtain approval of additional, physically superfluous facilities.

NGTL stated that under section 52 of the NEB Act, the Board must be satisfied before approving major new pipeline facilities that the pipeline is and will be required by the present and future public convenience and necessity. The Board must consider the economic feasibility of the pipeline which includes an assessment of gas supply, markets, contractual commitments and project financing, and the Board must consider factors which affect the broader public interest. NGTL noted that in recent years, the Board has assessed the economic feasibility of gas pipelines by determining the likelihood of the facilities being used at a reasonable level over their economic life and the likelihood of the demand charges being paid.

NGTL emphasized that there was no physical need for the North Suffield Pipeline. NGTL noted that AEC Suffield acknowledged that the pipeline will carry volumes currently flowing on the NGTL system. AEC Suffield also acknowledged that there is plenty of capacity on NGTL now and in the foreseeable future to transport the volumes it expects to flow on the North Suffield Pipeline. NGTL maintained that this was purely physical capacity duplication.

NGTL stated that it had no comment on AEC Suffield's ability to meet the section 52 project financing criteria. NGTL acknowledged that the North Suffield Pipeline is an at-risk pipeline, a fact which the Board may consider in its review of supply and market evidence. However, NGTL stated that the fact that it would be an at-risk pipeline can not be a total answer to these criteria in the absence of any other substantive evidence of supply and markets.

In terms of shipper commitments, NGTL noted that the Board has in the past stated that the existence of signed, long-term transportation agreements was strong evidence of the need for new pipeline facilities. However, in previous decisions where the Board has made this statement, it has been presented with contractual commitments significantly higher than the 24 percent of capacity that the Applicant has demonstrated in this case. NGTL also noted that the shipper is the Applicant's own affiliate.

NGTL argued that this level of contracting does not constitute compelling evidence of the need for the North Suffield Pipeline now, or in the future. NGTL stated that whether the economic feasibility criteria are considered individually or in the aggregate, the Application is virtually devoid of the evidence traditionally presented to satisfy the Board that a pipeline is financially viable and will be used and useful. NGTL stated that AEC Suffield has not demonstrated that the North Suffield Pipeline would be used at a reasonable level for the foreseeable future and, therefore, fails the economic feasibility test. NGTL said that, on this ground alone, the Board should deny the Application.

5.4 Other Public Interest Matters

5.4.1 Competition

Views of the Applicant

AEC Suffield submitted that it is in the public interest to allow competitive forces to work in the Canadian pipeline sector and that competition, at its simplest, is the ability of customers to make choices. AEC Suffield also submitted that the proposed facilities would provide shippers with a choice and that approval of the proposed pipeline is consistent with the public interest. AEC Suffield noted that the NEB and Alberta Energy Utilities Board (AEUB) have found competition to be in the public interest in previous decisions.

AEC Suffield stated that it was useful to compare the facts of the Coleman Pipeline, which was approved by the NEB (GH-1-98 Reasons for Decision), with those of the North Suffield Pipeline. In terms of location, both pipelines would be immediately upstream of NGTL's export delivery points. AEC Suffield also compared: the capacity of the proposed facilities (5.63 $10^6m^3/d$ (200 MMcf/d) for the Coleman Pipeline and 5.35 $10^6m^3/d$ (190 MMcf/d) for North Suffield); the capacity contracted at the time of the hearing (1.04 $10^6m^3/d$ (37 MMcf/d) for Coleman and approximately 1.27 $10^6m^3/d$ (45 MMcf/d) for North Suffield); and the total volumes flowing at export points at the time of the hearing, to calculate the possible offloading of the NGTL system (Coleman: 73.2 $10^6m^3/d$ (2.6 Bcf/d) and North Suffield: 183.1 $10^6m^3/d$ (6.5 Bcf/d)).

AEC Suffield argued that because of the similarities between Coleman and North Suffield, the Board's conclusions in the Coleman case could also be applied to the North Suffield case. In the Coleman decision, the Board said that "in general, the public interest is served by allowing competitive forces to work, except where there are costs that outweigh those benefits."

AEC Suffield referred to the Coleman decision where the Board recognized that different types of services were being offered by NGTL and Coleman at different prices. The Board stated that potential for choice by customers is one of the main forces behind the economic efficiencies that result from competition. The Board indicated that the construction of the Coleman pipeline would provide incentives for both firms to provide attractive, reliable service at a reasonable price. The Board stated that each step towards a more competitive market will yield incremental gains that are beneficial. In the longer term, approval of competitive facilities may help market signals flow to the providers of pipeline transportation service and their regulators to result in better system planning choices.

In the Applicant's view, NGTL simply wants to preclude producers in southeastern Alberta from having a choice as to which pipeline company provides them with transportation service.

Views of NGTL

NGTL stated that there is no statutory definition of the public interest, and argued that the public interest should embody the general concept of the greatest good for the greatest number. The Board must ensure that the probable overall benefits that a project may create for owners, shippers and others exceed the potential negative impacts on any other parties.

NGTL questioned what competitive benefits could possibly accrue to society if the North Suffield Pipeline were built. According to NGTL, AEC Suffield identified only one real benefit of competition, that being customer choice. NGTL maintained that in this case the only ones that would get increased choice are the people who can choose to use the North Suffield Pipeline instead of NGTL's facilities.

NGTL stated that another potential benefit of competition in relation to facilities construction is to encourage lower long-run costs for the basin as competition drives the most efficient expansion of infrastructure. However, in this case AEC Suffield and NGTL are not competing to provide the most economic and efficient expansion option to meet a genuine market demand for incremental capacity.

NGTL mentioned that another potential benefit of competition that the Board has considered before is that competition might lead to some excess capacity which, in itself, might create ancillary benefits by allowing markets to work more efficiently. However, NGTL suggested that this is not the situation in this case. The Western Canada Sedimentary Basin (WCSB), and the Suffield area in particular, already have excess transportation capacity.

NGTL stated that AEC Suffield did not bother to analyze the question of costs and benefits in detail. In NGTL's view, AEC Suffield promoted an extreme position that competition, almost by definition, will always create benefits for society that outweigh any potential costs, other than environmental costs.

NGTL pointed out that AEC Suffield acknowledged that there are limits on competition as a practical matter. AEC Suffield acknowledged that it would be difficult to define this limit and questioned the need for doing so at this point. NGTL argued that the suggestion by AEC Suffield that competition is, by definition, always good and virtually without limits, is simply not tenable from a principled perspective.

NGTL suggested that what AEC Suffield implied by this was that almost every proposed pipeline from an existing supply area should be approved because the competition that those pipelines would provide to the existing pipelines would necessarily create benefits to society that outweigh the costs associated with any duplication of facilities or any shifting of costs in every case. NGTL questioned how this could possibly achieve the greatest good for the greatest number.

NGTL argued that if the Board adopted AEC Suffield's interpretation of competition, it would essentially render the criteria under section 52 of the NEB Act meaningless. Based on the evidence before the Board, NGTL submitted that it seems clear that the environmental, social and economic costs of the North Suffield Pipeline outweigh the sole, and quite limited, benefit that it is anticipated to provide; that being customer choice. According to NGTL, the North Suffield Pipeline does not provide beneficial competition and it is not in the public interest.

5.4.2 Impacts on Existing Infrastructure and Third Parties

Views of NGTL

NGTL argued that the applied-for pipeline application is different from other bypass pipeline applications that the Board has considered and approved in recent years. This incremental pipeline capacity is proposed at a time when existing transportation capacity out of the WCSB significantly exceeds supply.

NGTL also referred to the public interest test expressed by the Board in the Coleman decision, "in general, the public interest is served by allowing competitive forces to work, except where there are costs that outweigh those benefits." NGTL outlined the costs that the proposed pipeline would impose on NGTL's shippers, consumers and producers in the WCSB in general. First, approval of the North Suffield Pipeline would unnecessarily increase the aggregate capital costs to transport gas out of the basin. The capital cost to the basin could be higher than $22.3 million because it does not include the construction of additional facilities that may be required by third parties to tie into the proposed pipeline.

Second, NGTL noted that there are impacts and costs on existing pipelines. NGTL said that the North Suffield Pipeline would tie into four existing AEC Oil & Gas compressor stations that also tie into the NGTL system. The four compressor stations, A1, A2, AB and B2 correspond to existing NGTL receipt meter stations AECO I, B, A and H respectively. NGTL reported that current receipt volumes at these stations are approximately 0.85 $10^6 m^3/d$ (30 MMcf/d) out of a design capacity of 3.24 $10^6 m^3/d$ (115 MMcf/d). NGTL said that these facilities are already underutilized, and, if the North Suffield Pipeline is built, the four most directly affected NGTL stations (AECO I, B, A and H) would be fully offloaded as soon as AEC Marketing's existing contracts expire. AEC Suffield acknowledged that there would be uncontracted capacity on NGTL's facilities for a period of time, but NGTL noted that AEC Suffield had not determined how long this period might be.

In its evidence, NGTL stated that it may have up to 16.2 $10^6 m^3/d$ (575 MMcf/d) of delivery capacity available on 1 November 2000 for firm service transportation at the Empress delivery point, and it may have over 28.2 $10^6 m^3/d$ (1.0 Bcf/d) of delivery capacity available on 1 November 2001 as a result of additional contract non-renewals.

Volumes flowing on the North Suffield Pipeline would generally be offloaded from the NGTL system. According to NGTL, the proposed pipeline would offload 5.35 $10^6 m^3/d$ (190 MMcf/d) from the NGTL system if it were ultimately filled. NGTL said that this offloading could result in a revenue shortfall for NGTL of up to $16 million a year and an unnecessary toll increase for NGTL's customers. The shortfall would not be offset in the near term through any refill.

If only 1.27 $10^6 m^3/d$ (45 MMcf/d) were lost to NGTL (the current volume contracted on the North Suffield Pipeline), then the cost to NGTL shippers might be $3.8 million per year.

NGTL stated that AEC Suffield argued that NGTL would not have to increase its tolls but could absorb the costs. NGTL said that it is a cost-of-service pipeline. It has a regulated return based on certain assumptions of risk. To suggest that NGTL should absorb these costs is to ignore the risk that is commensurate with that regulated rate of return.

Views of the Applicant

AEC Suffield argued that underutilization must be present if competition is going to occur. AEC Suffield maintained that without some underutilization of the system, NGTL is simply not going to compete. NGTL is just trying to preserve its monopoly in transporting gas out of the area.

AEC Suffield argued that, as in the Coleman case, the assessment of loss to NGTL should not be based on capacity but rather on the contracted volumes. Thus, the annual loss to NGTL would be approximately $3.8 million per year. AEC Suffield asserted that this would have a very minor effect on the tolls of remaining shippers. AEC Suffield also stated that NGTL is not required to pass on the impact of the loss of volumes to its shippers.

AEC Suffield noted that when it came to the question of supply, NGTL suggested that there was not enough gas for the proposed pipeline but, in the context of the impact on NGTL tolls, NGTL suggested that there could be too much gas flowing on the North Suffield Pipeline. AEC Suffield submitted that the remaining amount of gas in the Suffield area, 236 600 10^6m^3 (8.4 Tcf), translates into approximately 5.35 $10^6m^3/d$ (190 MMcf/d) on the AEC South Suffield Pipeline and 5.35 $10^6m^3/d$ (190 MMcf/d) on the North Suffield Pipeline for 60 years.

NGTL argued that in the Coleman hearing there was a view that the impact of constructing Coleman on existing pipelines would be short lived. NGTL stated that it did not believe that this would be the case in the North Suffield situation. To challenge this view, AEC Suffield quoted statements by TransCanada's President who recently remarked that he expected TransCanada's (and NGTL's) utilization rates to approach historic levels within five years.

When weighing costs and benefits, NGTL and AEC Suffield stated that other costs that the Board should consider are impacts on the environment and on landowners. AEC Suffield said that no non-governmental environmental or landowner groups intervened in the hearing. NGTL said that it did not take a position on the environmental merits of the Application. AEC Suffield did not believe that the project is likely to cause significant adverse environmental effects.

AEC Suffield argued that the costs associated with the North Suffield Pipeline do not outweigh the benefits to AEC Marketing and other potential shippers and the overall benefit of allowing competitive forces to work.

5.4.3 Potential Commercially Negotiated Solution

Views of the Applicant

AEC Suffield suggested that there are three potential outcomes of the proceeding: the Board refuses the application and AEC Marketing is forced to use the NGTL system; the Board grants the application and AEC Suffield builds the North Suffield Pipeline; or the Board grants the application and NGTL responds with a market competitive Load Retention Service (LRS) Rate. The latter two outcomes represent market-driven, industry-determined competitive options. If the Board wishes to support a market-driven solution, then the Board must grant the AEC Suffield application.

AEC Suffield stated that the evidence is clear that NGTL has all the tools to compete if it wishes. It may even be in a better position than it was in the Coleman Pipeline decision to compete, because the AEUB has recognized the LRS alternative in its decision on NGTL's 1999 Products and Pricing Application. AEC Suffield said that the LRS is an integral part of NGTL's rate structure, and that option is there for NGTL to rely on should it be faced with the threat of a competitive bypass situation.

AEC Suffield maintained that it should be easy for NGTL to compete with it since the NGTL pipeline is already there, but that NGTL lacks the motivation to do so. AEC Suffield submitted that it was ironic for NGTL to state that 1.27 $10^6m^3/d$ (45 MMcf/d) is not enough volume for NGTL to offer a LRS Rate, but it could do so for a volume of 5.35 $10^6m^3/d$ (190 MMcf/d). AEC Suffield submitted that the motivation for NGTL to compete would come from a decision of the Board to grant AEC Suffield's application. NGTL stated that Board approval of the North Suffield Pipeline could be one factor that would get NGTL to the negotiating table.

AEC Suffield would be prepared to talk to NGTL if a LRS Rate was offered and pipe had not been ordered. However, AEC Suffield argued that the North Suffield Pipeline is needed by the public convenience and necessity and would be constructed in a manner that would not give rise to any significant adverse environmental effects.

Views of NGTL

NGTL argued that the availability of a commercially negotiated solution is irrelevant to the Board's deliberations and does not alter the Board's mandate. NGTL stated that the availability of a commercially negotiated solution does not affect whether the North Suffield Pipeline is, on the merits of the Application, economically feasible and in the public interest. NGTL maintained that the Board cannot approve a pipeline application on the sole expectation that commercial markets will ultimately determine whether it is built if it does not otherwise meet those legislative requirements.

NGTL stated that AEC Suffield has implied that the load retention issue is one related directly to competition, and if NGTL wanted to compete, it would offer a LRS rate. NGTL stated that this position is incongruent, if not a contradiction of AEC Suffield's claims that the proposed pipeline will be used and useful and is needed to promote competition. NGTL questioned how the proposed pipeline could be in the public interest and necessity if it is also a prime candidate for a LRS.

NGTL also questioned whether the Applicant was really using the Application process as nothing more than a negotiating tool; a way to get a better deal from NGTL on the NGTL system. NGTL stated that the Board should not rely in any degree on commercial solutions as a sole reason to eliminate capacity duplication or cost concerns, because of the uncertainty and the unpredictability that a solution will actually be achieved. NGTL noted that despite efforts to negotiate a settlement with AEC Suffield in terms of the South Suffield pipeline, no settlement was reached and the pipeline was built.

NGTL stated that if the Board does accept the Applicant's assertion and it determines that an LRS Rate would be a relevant factor affecting the Board's deliberations, then NGTL suggests that the Board must, for similar reasons, recognize the public policy basis for the existing NGTL rate design. The current NGTL rate design and the resulting tolls were several years in the making. They involved significant collaborative efforts between NGTL, industry participants and stakeholders. The AEUB decided in

Decision 2000-6 that the overall rate methodology represented a reasonable compromise of competing interests and the resulting tolls were just, reasonable and in the public interest.

NGTL maintained that if the NEB ignores the policy basis for the existing rate design, but applies the LRS mechanism as a relevant factor, the NEB would be in some respects substituting its judgment for that of the AEUB about the appropriateness of the current NGTL rates.

NGTL stated that if AEC Suffield truly believes that the rate design on NGTL that is applicable to it in the Suffield area is unfair, unreasonable or unjust, it could go to the AEUB and make that argument.

NGTL concluded its argument by stating that AEC Suffield wants to construct incremental ex-Alberta transportation capacity to obtain a better priced service than that offered for comparable service on NGTL. AEC Suffield wants to do this at a time when there exists nearly identical physical facilities on NGTL that are significantly underutilized, that are currently transporting the same volumes and that can easily meet the aggregate needs for transportation services from the area for the foreseeable future. NGTL stated that AEC Suffield has made a business decision based on its own best interests. However, the Board's mandate is to ensure that the advancement of AEC Suffield's interests is not achieved at the unjustified expense of other affected parties.

Views of the Board

AEC Suffield filed its application for a certificate of public convenience and necessity pursuant to section 52 of the NEB Act which sets out the obligations of the Board with respect to the Application. That section is as follows:

> The Board may, subject to the approval of the Governor in Council, issue a certificate in respect of a pipeline if the Board is satisfied that the pipeline is and will be required by the present and future public convenience and necessity and, in considering an application for a certificate, the Board shall have regard to all considerations that appear to it to be relevant, and may have regard to the following:
>
> (a) the availability of oil or gas to the pipeline;
> (b) the existence of markets, actual or potential;
> (c) the economic feasibility of the pipeline;
> (d) the financial responsibility and financial structure of the applicant, the methods of financing the pipeline and the extent to which Canadians will have an opportunity of participating in the financing, engineering and construction of the pipeline; and
> (e) any public interest that in the Board's opinion may be affected by the granting or refusing of the application.

It is important to note that Parliament did not find it necessary to specify how the factors set out in the section, or any other factors that the Board might consider relevant, are to be examined and applied. The Supreme Court of Canada has indicated that the public convenience and necessity test is predominantly the formulation of an opinion by the tribunal. This opinion must be based on the record before it; that is to say, the decision must be based not only on facts but with the exercise of considerable administrative

discretion.[2] The unequivocal failure of an applicant to satisfy the Board on a single critical component (such as, for example, the ability to finance the project) may be enough for the Board to conclude that, on that fact alone, the project cannot be found to be in the public convenience and necessity. However, such failure on a single factor is unlikely. More common is the situation presented to the Board by this application, where the evidence in one or more of the areas of examination is stronger than that presented with respect to other relevant matters or than has been presented in other applications. In such cases, the Board will, on the basis of the evidence before it and within the specific circumstances of each application, apply administrative discretion and expertise in its overall determination of whether the applied-for pipeline is required by the present and future public convenience and necessity. Further, while the Board may be guided by past decisions, it need not be bound by them.

Certain relevant matters related to the design of the facilities (Chapter 2), environment, land and socio-economic matters (Chapter 3) and traffic, tolls and tariffs (Chapter 4) have been discussed in earlier sections of these Reasons for Decision. With respect to financial matters to be considered pursuant to paragraph 52(d), the Board is satisfied with the evidence of the Applicant. This evidence was not challenged during the course of the hearing. Remaining relevant issues of supply (paragraph 52(a)), markets (paragraph 52(b)), economic feasibility (paragraph 52(c)) and other public interest matters (paragraph 52(e)) are discussed in this section.

Supply

Gas supply to support pipeline facilities, immediately and into the future, includes established reserves together with undiscovered gas potential within an area that would be reasonably accessible to the proposed facilities. AEC Suffield presented evidence with respect to both types of supply.

The established gas supply in the Suffield Field would be immediately available to the proposed facilities. Additional gas supply from other fields may be available as NGTL transportation contracts expire with other shippers. This supply will likely be located at reasonable distance from the proposed facilities and well within the catchment area identified by AEC Suffield.

The Board notes that the AEC Suffield estimates of undiscovered gas potential are based on a form of evaluation that is difficult to describe in terms of methodology. The Board places greater confidence in stochastic methodologies that are able to quantify the uncertainty that typically accompanies estimates of undiscovered gas supply. In the future, the Board would expect the use of statistical-based probabilistic forecast methodologies as an approach in the examination of undiscovered gas potential supply.

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2 Memorial Gardens Association (Canada) Ltd. v. Colwood Cemetery Co. [1958] S.C.R. 353 @ P. 357 *...the question whether public convenience and necessity requires a certain action is not one of fact. It is predominantly the formulation of an opinion. Facts must, of course, be established to justify a decision by the Commission but that decision is one which cannot be made without a substantial exercise of administrative discretion.*

In assessing the opportunities for developing undiscovered gas potential, the Board notes that AEC Oil and Gas has made a significant investment in acquiring hydrocarbon rights below the Upper Cretaceous zones in the Suffield Field. AEC Suffield's gas potential study and other available public reports indicate there is additional deeper hydrocarbon potential in and around the Suffield Field, albeit with some uncertainty as is normally attached to any resource estimate. The Board is confident that, even if the various estimates of potential gas supply are partially discounted, there will remain significant undiscovered gas volumes to be accessed in the catchment area. Further, it is likely that a portion of the potential gas resources could be economically attached to the proposed North Suffield Pipeline.

Therefore, the Board is satisfied that, with the combination of existing gas supply and a portion of the undiscovered gas potential, there will be adequate gas supply to support the proposed facilities.

The Board notes NGTL's request for a certificate condition which would prevent the physical connection of the North Suffield Pipeline to the AECO C storage facilities without prior approval of the Board. The Board questions the practicality of such a condition and suggests that, should AEC Suffield wish to connect to the AECO C storage facilities, it would first be required to obtain appropriate approval to do so. Accordingly, the Board is not prepared to include the requested condition in any certificate that may be granted.

Markets

In light of the forecast growth in demand in eastern Canada and the U.S. Midwest and Northeast markets, in conjunction with existing market requirements which could be accessed by a competitive pipeline alternative, the Board is satisfied that there will be sufficient markets to support the proposed facilities over the life of the project.

Economic Feasibility

In recent years, the Board has assessed the economic feasibility of gas pipeline facilities by determining the likelihood of the facilities being used at a reasonable level over their economic life and the likelihood of the demand charges being paid. The context in which this test was first established[3] is that of expansions to established pipelines where existing shippers would bear all or a large portion of any risk of underutilization of the expanded facilities. That is not the case here. AEC Suffield is proposing to build a commercially at-risk pipeline; that is, the proponent will bear all financial risk of underutilized capacity. Accordingly, a strict application of the economic feasibility test would not be necessary to protect existing or future non-affiliated shippers. Nevertheless, the Board would normally wish to see some reasonable level of utilization over the economic life of the pipeline. In this case, it is reasonable to conclude that the affiliate of AEC Suffield who controls significant reserves in the area would use the proposed pipeline. The affiliate, AEC Marketing, has indicated, through a PA, its commitment to subscribe for 24 percent of the capacity for a term of 20 years.

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3 GH-5-89 Reasons for Decision, Volume 1 "Tolling and Economic Feasibility" dated November 1990, Chapter 3.

The Board considers the existence of signed long-term transportation agreements to be evidence of the need for the North Suffield Project. Therefore, the Board will include a condition in any certificate granted requiring AEC Suffield to submit a copy of the executed Transportation Agreement for the subscribed capacity of 46.4 TJ/d (approximately 45 MMcf/d) prior to the commencement of construction of the pipeline.

The Board is persuaded that the proposed pipeline will be used at a reasonable level over its economic life and that demand charges are likely to be paid.

Public Interest

The Board finds that the test it has applied in previous cases, "in general, the public interest is served by allowing competitive forces to work, except where there are costs that outweigh the benefits" continues to be relevant. The Board believes that the North Suffield Pipeline Application closely resembles the application to build the Coleman Pipeline. As in Coleman, the primary benefits in the North Suffield case relate to competition and choice. Shippers on the North Suffield Pipeline would be provided with an additional transportation choice, and would financially benefit because of the large differential between the proposed North Suffield tolls and those on the NGTL system in the area. AEC Suffield is prepared to take the financial risk of not realizing forecast economic benefits. The North Suffield Pipeline Application sends market signals regarding the cost efficiency of the existing transportation service.

The evidence indicates that the potential costs associated with the Application consist of third-party costs to existing shippers on NGTL. The Board recognizes NGTL's concerns regarding the availability of supply and the potential impacts on its facilities. The Board considers it relevant to distinguish the impact on NGTL's receipt meter stations located in the Suffield area and the impact on its eastern mainline. As NGTL stated, if the North Suffield Pipeline is constructed, it is likely that NGTL's receipt meter stations AECO I, B, A and H and tie-ins will be offloaded when AEC Marketing's existing contracts expire. The Board is of the view that the materiality of the costs of stranding these facilities is not great. Further, it is important to note that any NGTL mainline capacity left underutilized as a result of the proposed pipeline will be accessible by most volumes of natural gas produced throughout the geographic area of the NGTL system. Overall, the loss of AEC Marketing volumes will have little immediate impact on the NGTL system as a whole. Even assuming a 100 percent load factor, the proposed pipeline represents approximately only 3 percent of throughput on the NGTL mainline at Empress.

NGTL acknowledged that AEC Suffield's offloading of up to 5.35 $10^6m^3/d$ (190 MMcf/d) will not significantly exacerbate the anticipated delivery capacity available due to contract non-renewals on NGTL's eastern mainline in 2000 and 2001. Nevertheless, NGTL and its shippers could incur short-term costs in the range of $3.8 to $16 million per year for this period, which costs, if they occur, could be directly linked to the North Suffield Pipeline. However, the Board does not expect that this loss, which is relatively insignificant in the context of the entire NGTL system, will be long term. In this regard, the Board notes TransCanada's public statements indicating its confidence that the TransCanada (and NGTL) mainlines would be utilized at "historic levels within five years".

The Board believes that NGTL has options to mitigate the costs to itself and its shippers in the face of the North Suffield Pipeline Application. NGTL has the tools to compete, and the Board finds the potential of an LRS Rate to be relevant to its deliberations, only to the extent that it shows that NGTL has, in the past, demonstrated an ability to meet the challenges of competition notwithstanding that it is a fully regulated utility. The Board recognizes the AEUB's 2000-6 Decision in which the AEUB agreed that it was appropriate for NGTL to be able to respond to the threat posed by competitive bypass through an LRS Rate. If NGTL does not believe that it has the tools to address the situation presented by the North Suffield Pipeline Application, the Board is of the view that NGTL could work with its shippers and through its provincial regulator in devising a suitable outcome.

The Board agrees that there are limits to competition and that competitive pipeline proposals do not automatically imply that public benefits outweigh costs. However, in this case, on balance, the Board finds that the benefits outweigh the costs. At this time, there is no need to set out how the Board would define those limits in any future application.

Decision

The Board finds that the North Suffield Pipeline is and will be required by the present and future public convenience and necessity.

Chapter 6

Disposition

The foregoing constitutes our Decision and Reasons for Decision in respect of the application heard before the Board in the GH-2-2000 proceeding. The Board is satisfied from the evidence that the proposed facilities are and will be required by the present and future public convenience and necessity. The Board approves AEC Suffield's Application made pursuant to section 52 of the NEB Act for new pipeline facilities and will recommend to the Governor in Council that a certificate be issued, subject to the conditions set out in Appendix II.

E. Quarshie
Presiding Member

K.W. Vollman
Member

Judith A. Snider

J.A. Snider
Member

Calgary, Alberta
August 2000

Appendix I

List of Issues

In the Directions on Procedure the Board identified, but did not limit itself to, the following issues for discussion in the GH-2-2000 proceeding:

1. The economic feasibility of the applied-for project.

2. The potential commercial impacts of the proposed project.

3. The need for the proposed facilities.

4. The potential environmental and socio-economic effects of the construction and operation of the applied-for facilities including those factors outlined in subsection 16(1) of the *Canadian Environmental Assessment Act*.

5. The appropriateness of the design of the applied-for facilities.

6. The appropriateness of the general route of the pipeline.

7. The method of toll and tariff regulation, including the request by AEC Suffield that it be regulated as a Group 2 company for the purposes of the toll and tariff regulation of the North Suffield Pipeline (as described by the Board's Memorandum of Guidance dated 6 December 1995 on the Regulation of Group 2 Companies).

8. The terms and conditions to be included in any certificate which may be issued.

Appendix II

Proposed Certificate Conditions

General

1. Unless the Board otherwise directs, AEC Suffield shall cause the approved facilities to be designed, manufactured, located, constructed and installed in accordance with those specifications, drawings and other information or data set forth in its Application or as otherwise adduced in evidence before the Board in the GH-2-2000 proceeding.

2. Unless the Board otherwise directs, AEC Suffield shall implement or cause to be implemented all of the policies, practices, and procedures for the protection of the environment included in or referred to in its Application or as otherwise adduced in evidence before the Board during the GH-2-2000 proceeding.

Prior to Commencement of Construction

3. Unless the Board otherwise directs, AEC Suffield shall, at least 14 days prior to the commencement of construction of the approved facilities, file with the Board a detailed construction schedule or schedules identifying major construction activities and shall notify the Board of any modifications to the schedule or schedules as they occur.

4. Unless the Board otherwise directs, AEC Suffield shall file with the Board, at least 10 days prior to the commencement of construction of the approved facilities, a construction inspection program. The construction inspection program shall include a detailed list of the number and type of each inspection position, including job descriptions, qualifications, roles, responsibilities, decision-making authority and reporting structure of personnel responsible for inspection of the various pipeline construction activities, including environment and safety.

5. Unless the Board otherwise directs, AEC Suffield shall file with the Board at least 10 days prior to the commencement of construction of the approved facilities, details of its Construction Audit Program. The program shall include the audit schedule or mechanisms which would trigger the audit program, the roles and responsibilities of the audit team, the audit objectives and methodology, and the means of verifying that findings of non-compliance are being resolved for the various pipeline construction activities, including environment and safety.

6. Unless the Board otherwise directs, AEC Suffield shall retain and have on-site during construction, a qualified soil specialist and shall file with the Board for approval, at least 30 days prior to the commencement of construction, the qualifications, role, responsibilities, decision-making authority and reporting structure of that soil specialist position.

7. Unless the Board otherwise directs, AEC Suffield shall file with the Board, at least 14 days prior to the commencement of construction of the approved facilities:

(a) a construction safety manual pursuant to section 20 of the *Onshore Pipeline Regulations, 1999* (OPR-99);

(b) a field joining program which contains procedures to be used for field joining of the North Suffield Pipeline pursuant to section 16 of the OPR 99; and

(c) AEC Suffield's Pipeline Construction Specifications.

8. Unless the Board otherwise directs, AEC Suffield shall file with the Board for approval, at least 21 days prior to the commencement of construction, including clearing of vegetation or ground-breaking activities, an Environmental Protection Plan.

9. Unless the Board otherwise directs, AEC Suffield shall file with the Board for approval, at least 21 days prior to the commencement of construction, including clearing of vegetation or ground-breaking activities, a specific mitigation plan for each wildlife and plant species of special status and vegetation community of concern that may be adversely affected by construction, and copies of all correspondence demonstrating consultation with appropriate regulatory agencies, including Environment Canada, in developing the mitigation plans.

10. Unless the Board otherwise directs, AEC Suffield shall file with the Board for approval, at least 21 days prior to the commencement of construction, including clearing of vegetation or ground-breaking activities, a specific follow-up plan to assess the effectiveness of the proposed mitigation plan developed for Ord's kangaroo rats, each rare plant species and each vegetation community of concern, and copies of all correspondence demonstrating consultation with appropriate regulatory agencies, including Environment Canada, in developing the plans. The follow-up plans will include a schedule for filing reports with the Board.

11. Unless the Board otherwise directs, AEC Suffield shall, at least 14 days prior to the commencement of construction, file with the Board copies of all correspondence from the provincial archaeological authorities regarding the acceptability of the Historical Resources Impact Assessment, including an updated assessment for the re-route.

12. Unless the Board otherwise directs, AEC Suffield shall, prior to the commencement of construction of any of the approved facilities, demonstrate to the Board's satisfaction that, in respect of the transportation of firm volumes on the North Suffield Pipeline, transportation contracts have been executed for the subscribed capacity (i.e., 46.4 TJ/d (approximately 45 MMcf/d)).

13. Unless the Board otherwise directs, AEC Suffield shall file with the Board for approval, at least 21 days prior to the commencement of construction, the following information with respect to any modifications required for the re-route:

(a) the results of public consultation, a list of affected landowners and the status of the land acquisition process;

(b) the North Suffield Pipeline permanent right-of-way requirements;

(c) the North Suffield Pipeline 15 metre permanent right-of-way parallel to any pipeline facilities and roads; and

(d) the North Suffield Pipeline temporary working space requirements.

During Construction

14. Unless the Board otherwise directs, AEC Suffield shall file with the Board, at least 14 days prior to pressure testing, a pressure testing program pursuant to section 23 of the OPR-99, and any specific mitigative measures that AEC Suffield intends to use for hydrostatic testing.

15. Unless the Board otherwise directs, AEC Suffield shall, during construction, maintain for audit purposes at each construction site, a copy of the welding procedures and non-destructive testing procedures used on the project together with all supporting documentation.

16. Unless the Board otherwise directs, AEC Suffield shall develop an audit program for the protection of property, the environment, and the safety of the public and the company's employees pursuant to section 53 of the OPR-99. AEC Suffield shall file with the Board, 7 days prior to the commencement of operation, a schedule of when it expects to complete the planning, design, development, and implementation of the audit program.

17. Unless the Board otherwise directs, AEC Suffield shall construct the crossing of the South Saskatchewan River at the proposed location and using a horizontal directional drill method.

18. Unless the Board otherwise directs, AEC Suffield shall not carry out construction, clean-up or reclamation activities during the period 15 April to 15 July, and shall observe the timing and setback restrictions identified by Environment Canada specifically associated with species listed as endangered, threatened or of special concern by the Committee of the Status of Endangered Wildlife in Canada.

19. Unless the Board otherwise directs, AEC Suffield shall file construction progress reports with the Board on a weekly basis in a form satisfactory to the Board. The reports shall include information on the activities carried out during the reporting period, environmental issues, environmental non-compliance and resolution of each issue.

Expiration of Certificate

20. Unless the Board otherwise directs prior to 31 December 2001, this certificate shall expire on 31 December 2001 unless the construction and installation with respect to the applied-for facilities has commenced by that date.

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